

# **Influence of Environmental Factors on Breast Cancer**

## **Abstract**

**Introduction:** Breast cancer consists 1/3 of all types of cancer in female. It is the main cause of death in 20-59 years old females with cancer. Unfortunately, the rate of developing this type of cancer is rapidly increasing in some countries including Iran. Therefore, it is critically important to identify the potential risk factors and their role in causing this type of cancer. This inevitably needs epidemiological studies. This thesis is aimed to determine environmental risk factors playing a role in development of breast cancer in Ardabil province.

**Methods and Materials:** This study is an analytic study (case-control) conducted on 75 patients (case) with pathologically verified breast cancer, and 75 controls from neighbors who were matched with case group in terms of age (5 year frequency age matched). Data were collected using questionnaire and by conducting face to face interview. Questionnaire included questions about demographic information, fertility profile and family history of the patients and lifestyle variable. Fisher exact and Chi-Square Tests and Logistic Regression were used to analyze the data.

**Findings:** In this study mean age for case and control were  $46.5 \pm 11.9$  and  $46.2 \pm 12.4$  years (age range of 20 to 86), respectively. Variables such as intake of contraception (OR=6.9, 95%CI=2.27–21.13), red meat intake (OR=2.9, 95%CI=1.2–6.97) were found as risk factors for breast cancer whereas breastfeeding history (OR=0.2, 95%CI=0.06–0.83) and fish consumption (OR=0.15, 95%CI=0.06–0.43) were protective factors for breast cancer.

**Conclusion:** Average age of development of breast cancer in Ardabil Province is consistent with studies conducted in other parts of the country however it is two decades less than that of developed countries. Based on the risk factors identified for breast cancer in Ardabil province, it is recommended that individuals having these risk factors seek necessary cares for early diagnosis such as breast self-exam.

**Keywords:** Breast cancer - Environmental factors - Individual factors